

APPENDIX N

VIRGINIA DEPARTMENT OF HEALTH

REGISTRATION SHEET

DATE: 1/11/99 1:00pm
page 1 of 1

Wish to Speak ?	Name/ Address	Representing/ Phone
YES	John Q. Public 3931 North Street Quinton VA 23217-3245	JQP Waterworks 804 - 555 - 1234
NO	WAYNE WEIKEL 145 Campbell Ave. SW. Roanoke, VA 24001	SE/RCAP (540) 345-1184
NO	RONALD E. CONNER LEXINGTON FIELD OFFICE, VDH 131 WALKER ST LEXINGTON, VA 24450	VA DEPT OF HEALTH (540) 463-7136
NO	KEN COFFMAN 1280 LUGAR LANE FINCASTLE, VA. 24090	VA-RURAL WATER ASSO C.
NO	DAVID NELMS 1730 E. PARHAM RD RICHMOND VA 23228	U.S. GEOLOGICAL SURVEY
NO	Bob Tate Lexington Field Office	VDH/OWP 540/463-7136
NO	Jerry Feats VDH	
NO	Alan Weber VDH	

VIRGINIA DEPARTMENT OF HEALTH

REGISTRATION SHEET

DATE: 1/11/99 7:00 pm
page 1 of 1

Wish to Speak ?	Name/ Address	Representing/ Phone
YES	John Q. Public 3931 North Street Quinton VA 23217-3245	JQP Waterworks 804 - 555 - 1234
Yes	Robert F. Canva HSMH PO Box 13446 Roanoke VA 24034	540-857-3155
	Ronald E. Conner Va Dept of Health 131 Walker St Lexington	(540) 463-7136
	Bill Tanger FOR VA PO Box 1750 Roanoke VA 24008	540-343-3696
NO	Wayne Wikel P.O. Box 2868 Roanoke, VA 24001	SE/RCAP (540) 345-7184
NO	Jerry Peats VDH	
NO	Alan Weber VDH	

**COMMENTS TO PUBLIC MEETING
VIRGINIA'S SOURCE WATER ASSESSMENT PROGRAM
ROANOKE, VIRGINIA
7:00 PM, JANUARY 11, 1999**

BY: Robert F. Canova, PE, AAEE
Director of Environmental Division, Hayes, Seay, Mattern & Mattern, Inc.
Trustee, Virginia Section of American Water Works Association
Member, Government Affairs Committee of Virginia Water Environment Association

Review comments relative to Draft Virginia Source Water Assessment Program, dated December 15, 1998:

1. The Program (page 6) states that Section 15.1-292 of the Code of Virginia authorizes local governments to prevent water pollution within 5-miles of a water supply intake. Section 15.1 of the Code of Virginia has been repealed and there is no equivalent code in Section 15.2. Historically, local governments have not had the authority to prevent water pollution outside their own jurisdiction. Prevention of water pollution is the responsibility and privilege of the Virginia Department of Environmental Quality.
2. Coordinate the Source Water Assessment Program with the EPA Clean Water Act initiatives for watershed assessment and total maximum daily load policy.
3. Use of a fixed radius of influence for ground water sources is a start, but probably not realistic for defining true potential for ground water contamination, especially in karst geology. As an example, we cannot currently identify sources of coliform contamination to ground water sources under the influence of surface water.
4. Appendix F does not appear to include a land use category for "urban" to account for urban runoff.
5. Appendix F does not appear to include a category for contamination not necessarily related to land use, such as spills. Add the following data sources to the Program:
 - Virginia DEQ Pollution Complaint file and data base
 - Federal NPL List
 - Federal CERCLIS List
 - Federal RCRA TSD Facilities List
 - Federal RCRA Generators List
 - Federal ERNS List
6. Appendix F "agricultural land" should be quantified as "agricultural land under cultivation", to account for the potential sources of siltation, herbicides, pesticides and fertilizers. Soil Conservation Service has a file of 5-Year cultivation plans from the agricultural community.
7. Can the Source Water Assessment Program address air borne sources of water pollution? Can the Program address interstate sources of pollution?

Sincerely,

Robert F. Canova
Hayes, Seay, Mattern & Mattern, Inc.
P.O. Box 13446
Roanoke, VA 24034
Tel (540) 857-3155
Fax (540) 857-3296
rcanova@hsmm.com

Response to Robert F. Canova

At the Roanoke Public Meeting (7:00 p.m.), Mr. Canova presented comments. Each comment was discussed directly with Mr. Canova by the TAC and TEAM members present. The following were our responses:

1. We have researched this comment. The proper Code number is §15.2-2109 and does state the five miles. We will make any necessary corrections.
2. Our intent is to coordinate the assessments with any appropriate source water protection activities.
3. We agree and this is acknowledged in our SWAP.
4. Mr. Canova agreed that the storm water discharge activity listed would resolve this comment.
5. After discussion with the TAC and TEAM members, Mr. Canova was satisfied that the various transportation categories adequately addressed his concern for spills. The data sources that he suggested to add are to be investigated by our subcontractor.
6. Mr. Canova was advised that our TAC and TEAM did discuss this issue and felt that uncultivated land also received application of fertilizers, herbicides, pesticides, manure, biosolids, etc. and needed to be included.
7. Relative to airborne sources of pollution, we do not feel that Virginia has "significant potential pollution" sites of this nature. Relative to interstate sources of pollution, the SWAP will address this issue.

Response to Bill Tanger

At the Roanoke Public Meeting (7:00 p.m.), Bill Tanger of Friends of the Rivers of VA had a number of comments.

1. His coalition represents the surface water interest in the state. He would like to be on our mailing list, which we agreed to. We tried to get a list of those who might be interested but their group was not mentioned. A large mailing list was used.
2. Maps – Tanger's group is in the process of publishing a report on rivers for the entire state. We explained that our maps would be for individual sources but the latitude & longitude locations could be used by his group for mapping.
3. Mr. Tanger asked who will help with mapping? We responded that we have contracted for someone to work with the Virginia Economic Development Group to prepare our GIS layers.
4. Mr. Tanger asked about the money available for the assessments. We described the funding available. We will use this through some contracts but use our staff for the majority of the assessments.
5. Mr. Tanger asked if this is a one-time project or will it be updated? We advised that we will get this done for existing sources under this effort and that all new ones would have an assessment. We described future assessments were probable through the Ground Water Rule, etc. Our sanitary surveys would be geared to update the inventory of land use activities.
6. Mr. Tanger asked that the VA Conservation Directory, Chesapeake Bay Directory and their National Group be added to the mailing list. We responded that we would add these to our mailing list.

The meeting adjourned at 8:20 p.m.

7 total in attendance

VIRGINIA DEPARTMENT OF HEALTH

REGISTRATION SHEET

DATE: 1/12/98 - 2:00 pm
page 1 of 2

Wish to Speak ?	Name/ Address	Representing/ Phone
YES	John Q. Public 3931 North Street Quinton VA 23217-3245	JQP Waterworks 804 - 555 - 1234
No	Jerry Peaks VDH-BWP	804-371-2882
Yes	Kyle Briesath 4455 Connecticut Ave NW A300 Washington DC 20008	Clean Water Action 202-895-0420 x102 kbriesath@cleanwater.org
No	Richard D. Hartman 21300 Chesdin Rd Petersburg, Va 23803	Appomattox River Water Auth 804-590-1145
No	Robert M. GORE 1602 Rolling Hills Dr Suite 212 Richmond, VA 23229	VIRGINIA SECTION AMERICAN WATER WORKS ASSOCIATION (804) 282-1821
No	Roland C Steiner ICPRB, Suite 300 6110 Exce Blvd Rockville MD 20852	Interstate Commission on the Potomac River Basin (301) 984-1908 x114
No	George E. Harlow, Jr. U.S. GEOLOGICAL SURVEY-WRD 1730 EAST PARKMAN ROAD Richmond VA 23229	U.S. Geological Survey (804) 261-2631

VIRGINIA DEPARTMENT OF HEALTH

REGISTRATION SHEET

DATE: 1/12/
page 2 of 2

Wish to Speak ?	Name/ Address	Representing/ Phone
YES	John Q. Public 3931 North Street Quinton VA 23217-3245	JQP Waterworks 804 - 555 - 1234
No	Traci Goldberg 8560 Arlington Blvd. P.O. Box 1500 Merrifield, VA 22151	Fairfax County Water Auth
No	Scott Emery 723 Woodlake Dr. Chesapeake, Va 233201	Hampton Roads Planning Dist Commis 757 - 420 - 8300
No	W. S. Emery 300 Turner Rd Richmond, VA	VDH-OWP
No	Aaron Douglas 300 Turner Rd Richmond 23225	VDH-OWP
No	Bennett K. Ragnan 300 Turner Road Richmond, VA 23225	VDH, OWP
Yes	Patti Jackson P.O. Box 110 Richmond, VA 23218	James River Ass'n

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DATE: 1/12/99 7:00pm
 page of

Wish to Speak ?	Name/ /Address	Representing/ /Phone
YES	John Q. Public 3931 North Street Quinton VA 23217-3245	JQP Waterworks 804 - 555 - 1234
NO	Alan Weber VDH	
NO	Jerry Peaks VDH	

Source Water Assessment Program

Public Meeting

January 12, 1999

2:00 p.m.

The meeting started at 2:10 p.m. with opening remarks by Mr. Jerry Peaks. Mr. Peaks had available extra copies of the Source Water Assessment Document and offered to distribute this document to any individuals that needed a copy at that time. Mr. Peaks then explained the format of the meeting which included his introductory comments, a question and answer session, and then a formal public comment. In his opening comments Mr. Peaks reviewed the EPA schedule for submission of the plan to them for review, and the goal that the State Health Department had of performing all Source Water Assessments within a 42 month time frame. Mr. Peaks then went on to discuss the three committees that were involved in the preparation and review of the Source Water Assessment Program. Specifically Mr. Peaks described the Technical and Citizens Advisory Committee, how it was formed, and the criteria used in forming its membership. He then briefly discussed the Source Water Assessment Team and their roll in putting together the Source Water Assessment Program. Thirdly, Mr. Peaks indicated that the Waterworks Advisory Committee to the State Health Commissioner would provide a final endorsement of this document before it's submission to the EPA.

Mr. Peaks then gave a brief overview of the Source Water Assessment Program by summarizing it's goal as follows:

- *Delineation and identification of sources of contamination.*
- *Identification of land use around the Water Supply Source.*
- *Determination of susceptibility of the Water Source.*
- *A final assessment provided to the Public.*

Mr. Peaks then indicated that EPA has had a draft of the Source Water Assessment Program for approximately 30 days and that they have generally given positive comments on the program based on their initial review. Next a general question and answer session was open to the Public. These questions were general in nature and addressed issues such as what affect would this program have on owners, will there be funding available to assist owners and how will the Health Department provide resources to see that this program is fully implemented. There were also some general questions as to how the delineation areas were determined, how will GIS overlays be used and then made available for information, and why was the Health Department not using a goal of 24 months without the 18 month extension. Public comments are as follows:

Kyle Briesath provided the following comments and followed up with written comments:

- 1 The Technical and Citizens Advisory Committee (TAC) did not have an adequate representation by environmental groups and sensitive population groups.*
- 2. Urge that the TAC committee should be involved throughout the implementation of the Source Water Assessment Program.*

3. *They were concerned that the goals identified in the Source Water Assessment Program did not mention water quality goals or Public Health as a significant concern.*
4. *Source Water Assessment Program was weak on how information was made available to the Public. Specifically the report indicates that the information would be available at a Public Library. This information should be made available at more than just one Public Library.*
5. *The goal section on the Source Water Assessment Program states the intent to do a Source Water Assessment but not to identify corrective recommendation. The report should also include specific recommendation for corrective actions.*
6. *They were concerned that the Health Department was not using the 24 month time frame as identified by the EPA for completion of the Source Water Assessments. They were also concerned that there was no financial plan to get the work done and that the State Health Department did not have a specific budget item for the performance of the Source Water Assessment.*
7. *The Source Water Assessment should include specific information on regulated and unregulated contaminants found within the assessment area. There should also be some program for water quality testing results to be included as part of the report and the program.*
8. *The product deliverables for the plan would include recommendations for source water protection action.*
9. *The Health affects of contaminants identified in the Source Water Assessment should be listed as part of the program deliverables or as a minimum be identified where they could be easily obtained.*
10. *Source Assessment should include specific references to the consumer confidence report, and that water quality information may be found there.*
11. *They were concern that fixed radius area for wells was not sufficient. They believe that every available accurate information should be used to develop the area around a well for assessment as opposed to a standard fixed radius.*

The following are comments from Patricia Jackson of the James River Association:

1. *There is not adequate citizen representatives on the TAC committee. This resulted in public health and public notice issues not being properly addressed.*
2. *The TAC meetings were scheduled during the day. This resulted in these meetings not being assessable by the public.*
3. *The public notice requirements of the source water assessment program are not adequate to insure that the public will be notified.*
4. *There needs to be a greater effort to involve the public and the TAC during the source water assessments from here on out.*
5. *The State Health Department should consider newspaper advertisement style notifications of the Source Water Assessment plan and allow comments before the February 6th submittal to EPA.*

6. *In the Source Water Assessment Program the wording which identifies the efforts the waterworks owner must do to perform public notice is minimal. The waterworks owner should be required to do more in the area of public notice.*
7. *Table number 1 should be relabeled “potential sources of contamination” as it was originally worded. Ms. Jackson does not agree with this change made by the TAC and the Source Water Assessment Team.*
8. *In table 1 landfill should be identified as lined or unlined and the risk of unlined landfills should be increased to high risk for Groundwater sources. Lined landfills should have a medium risk associated with them. Open dumps should have a high high risk assessment.*
9. *Why don’t we identify specific contaminant for barges and sink holes. We should list all potential contaminant.*
10. *The scope of work for the Source Water Assessments should be looked into in detail. There needs to be budget items for this work and additional people hired and money allocated to insure that these assessments are performed in a timely manner.*

The following are additional comments from Kyle: comment no. 11 continued.

11. *All cost areas should have separate delineation areas*
12. *The surface water delineation of five miles from the intake is not adequate. There were no further public comments from any individuals in attendance. Mr. Peaks therefore closed the meeting.*

**Virginia Source Water Assessment Program
Public Comments to the Draft**

Submitted to
Jerry Peaks
Virginia Department of Health
1500 East Main Street
, Room 109
Richmond, VA 23219

January 19, 1998

Submitted by
Kye Briesath, Clean Water Action
Chris Miller, Piedmont Environmental Council

Introduction

As concerned consumers, environmentalists and family members, we are submitting this first draft of our comments regarding Virginia's Source Water Assessment Program. Water is our most important natural resource. Virginia's population density, close proximity to pollution sources and rapid development make the state's drinking water highly vulnerable. The Congressionally mandated SWAP gives Virginia a new weapon with tremendous potential to protect our drinking water at its source -- the ultimate pollution prevention. Given limited resources and no guarantee of funding for second assessments, it is imperative that we do it right the first time.

Overall, we are disappointed with Virginia's draft SWAP dated December 15, 1998. This draft lacks important details, public participation and public input, and commitment to public health. Our comments are intended to inspire the drafters of the document to provide more specific information, include more citizens in decisions, and set higher standards to protect the health of the most vulnerable among us.

We would still appreciate future opportunities to comment on this SWAP draft, particularly after we review information about this SWAP that we have requested as part of this document. We will continue to comment on Virginia's draft as we receive new information or obtain new insights, and we would like to be involved in subsequent discussions and decisions regarding the implementation of SDWA and the development of Virginia's SWAP and Source Water Protection Plans. If you have any questions about our comments, please do not hesitate to call or E-mail us for further clarification. We do appreciate the opportunity to participate in this important process, and hope that our contributions will improve the overall health of the citizens of the Commonwealth.

Clean Water Action

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II. Description of Public Participation

We have concerns about who was notified and recruited to participate in the Waterworks Advisory Committee, the Source Water Protection Teams and the Source Water Assessment and Technical and Citizens Committees. Notification was listed in the Virginia Register -- but the average citizen or community organization does not receive this expensive and obscure publication. Invitations to participate were given to those who participated in an EPA SWAP workshop in North Carolina -- but we assume that it was a very small and limited group attended (who did attend?). Invitations were given to participants in a American Water Works Association workshop -- but waterworks professionals have dominated the SWAP Citizen Advisory Committees nationwide and their issues appear to have overshadowed the participation and input of citizen's groups.

Water works professionals are technical experts on these issues and are paid by our water fees to participate in these types of processes, unlike other citizen or consumer group representatives who are largely volunteers and are not compensated for their participation. While both lower costs and higher protections for public health would be the ideal combination, we are concerned that measures should be taken to guard against potential conflicts of interest from those who may be more interested in lower costs for the industry rather than higher public health standards.

The plan notes that "special efforts were expended to include citizen, environmental group, and sensitive population representatives" but we would like to know specifically what the state did to reach out to these groups since we did not notice your efforts. We are also concerned that only a few representatives from these groups are listed on the committees, and when we called several of them they did not realize they were on the committee. Some citizen members were only able attend one or a few meetings.

We are not satisfied with the level of public participation throughout the process in Virginia. Minutes of the meetings do not list the participants in each meeting, and we are concerned that very few of the listed citizen group representatives actively attended many

meetings. We would appreciate a listing of the attendees at each of the three SWAP committees meetings'. We would have also preferred to see more detailed minutes of the proceedings, the recommendations made by the participants, and the inclusion or lack of inclusion in the draft Assessment. We are also disappointed that state officials, after noticing limited citizen participation, did not make a more concerted effort to correct the situation by calling participants who failed to attend meetings, or by actively recruiting additional citizen participants. In fact, Ellen Bundrick and Kye Briesath from Clean Water Action requested to serve on the Citizen Advisory Committee -- Ellen the summer of 1998 and Kye in December of 1998. Ellen was the only one who received a response about participating -- a staff member discouraging her participation since the group had been meeting since February, but neither she nor Kye received invitations to future meetings or other information about the process, nor did they receive invitations to the public meetings about the SWAP or requests for written comments. We also note that several public meetings on the SWAP were held in Richmond and Roanoke, but were concerned that none were held in Northern Virginia where a large number of state residents live, and concerned that the public meetings were not well publicized.

We would like to formally request that an expanded Citizen Advisory Committee continue throughout the implementation of this SWAP. We would like the state to actively seek the participation of a wider group of citizen, environment and public health groups throughout this assessment program, as well as in the formation and implementation of Source Water Protection recommendations for Virginia. We also request that a Clean Water Action representative serve on the ongoing Citizen Advisory Committee. We would like an accounting of funds already spent and funds allocated for future public participation efforts from the SDWA set-aside in Virginia.

We would also appreciate a list of other recommendations and comments the state has received on the draft Assessment, the sources of those comments, the decisions reached about including those recommendations, and other changes to the draft Assessment that will be sent to the EPA.

III. SWAP Development Approach

We are appalled that the first goal states that "Assessments will be conducted for the protection and benefit of waterworks and for the support of monitoring flexibility" (which a cynic could interpret as maintaining minimal testing requirements). The goals should state that the primary goal of the SWAP process is to provide a detailed assessment for the purpose of developing a strong drinking water protection plan for the optimal public health of Virginia residents, including the most vulnerable among us like children, elderly, or ill family members. Based on the public participation in the development of this document, we are concerned that the results of the assessments may be skewed to minimize costs to affected waterworks and the state budget at the expense of increased risks to public health. This entire section of "Goals" omits the very objective that the state SWAPs were meant to address through the Safe Drinking Water Act.

While we support maintaining monitoring flexibility when a SWAP is well done and

complete, a bad assessment could lead to unnecessary negative public health consequences. We want to make sure that a thorough assessment of all the contaminants in Virginia's source waters are evaluated before eliminating testing for contaminants that could pose potential health threats to our population. How will the public participate in the review and development of the list of contaminants to be assessed?

We are encouraged that the waterworks owners will be "encouraged to proceed with source water protection programs," and that later in this section the draft notes that the final assessment will indicate where intensified site-specific source water protection is needed. As the assessments are completed, we would like the state to develop a list of specific recommendations for source water protection in its final SWAP report, and to follow up with those recommendations. We also want citizens involved in establishing these recommendations for source water protection.

"Assessments of all sources will be completed within 42 months". The SDWA guidelines call for completion of assessments within a 24-month time frame. A one-time 18 month extension may be granted by the EPA Administrator for certain and specific reasons, generally financial in nature. We are concerned that the state make every effort to complete the assessment within the earliest possible timeline. The sooner the assessments are complete, the sooner prevention programs can be established to protect public health.

"Assessments will provide meaningful information...". The statement in this goal directly contradicts later statements in this draft that indicate that the state does not have "adequate staff and financial resources to complete the assessments". We would hope that the state would commit to fully implementing a full assessment within the timeline mandated by the SWAP. We request that the public be involved in financial decisions regarding the SWAP's budget and staffing. We urge that the state provide a detailed work plan as to how each SWAP dollar would be spent and for what, and who would carry it out as required by the Intended Use Plan. We support state efforts to maximize funding for the assessment and the secure additional financial and staffing resources to prepare accurate and thorough source water assessments. We would like to see a budget for the SWAP, including the funds available from the SDWA set-aside in Virginia and the timetable for expenditure of those funds. How does the state reconcile its current budget surplus (shown as being \$900 million according to the Washington Post of 1/10/99) with its concerns for completing a full assessment? If staff and funding are problematic, how will the state overcome these issues? How will the public have the opportunity to review allocations of funding to assure a complete assessment?

We also understand that a large portion of the assessment assignments and funds will be distributed to water utility professionals serving as consultants to this assessment process. We would also request that citizens be involved in evaluating the results generated by utility professionals who may have a different perspective about their research or findings than citizens may have. We also urge the state to consider a wider list of independent contractors, as well as non-profits or other consumer, environmental or public health

organizations to complete sections of the assessments.

The draft must more specifically define and detail the nature of the waivers to Phase II/V monitoring referred to and demonstrate that continued acceptance of the waivers is fully compliant the EPA SWAP/SWPP guidelines and appropriate for the health of Virginia residents. What would be required of the state to re-evaluate the existing, planned, proposed and possible waivers prior to their inclusion as part of the SWAP?

IV. Source Water Assessment Areas Delineation

We are concerned that the state decided to utilize a fixed radius to delineate most ground water and surface water sources rather than first utilizing the delineation information currently available. **We would urge the state to first fully utilize all of the information available from USGS, GIS mapping and other sources to determine much more accurate delineations. We also encourage the state to involve the public in the determination of any fixed radius delineation before the decision to do so is made, and that every effort will be made to utilize more specific delineation models at the state's earliest opportunity.**

Conjunctive delineation of water sources (a combination of ground and surface water) outlined in the plan are similarly flawed. If the state does not plan on using information available from a variety of existing government sources, we deserve an explanation about why.

We think that the state offered poor justification for a fixed radius approach, including the rationale that treatment and filtering mitigates the need for more specific source delineations. Virginia has had a poor record of inspecting, enforcing and fining NPDES violators, prompting the EPA enforce fines on one of the worst polluters in the state who was not being held accountable for their pollution (Smithfield). These facts do not make us confident that a fixed radius approach will protect us from pollutants that may be further away from the source but may affect our drinking water more profoundly than sources much closer to the source within the fixed radius.

We also recommend that separate delineation plans be implemented for karst and non-karst areas, with special emphasis on obtaining sound geological delineation boundaries for karst areas. Karst areas hasten water flow and often have fast times of travel to the well head, requiring greater scrutiny than a fixed radius delineation would give. **The state should make every effort to use time of travel for water reaching well heads in its determination of all groundwater delineation zones.** Virginia is full of porous rock, and the beautiful Lurray Caverns are a magnificent example of the underground caves that abound in the state. Water can travel quite quickly in these areas and should be evaluated accordingly.

Utilizing a fixed radius for surface water is also problematic, and we would urge the state to utilize as much of the watershed as possible in the delineation zone for surface waters. Again, a fixed radius is certainly cheaper financially to administer, but it often bears little resemblance to the sources of pollution to our water supply. We urge a dual approach with an evaluation the entire watershed for potential contaminants that reach a drinking water

source within ten years, with special emphasis and details for those segments where the time of travel to the source is one year or less. We also suggest that the delineation for tributary intakes have a minimum width of 1000 feet on each bank for the principle stream (500 feet on each tributary draining into the stream) and a minimum length of ten miles upstream of the intake, including the principal stream and all tributaries which drain into it. These minimum values can be decreased only if comprehensive modeling exists which conclusively shows the values should be decreased.

It is also important to include time of travel and the entire recharge areas for ground water sources in mapping the delineation zones. These areas are also susceptible to contamination. We believe that the assessment and protection of recharge areas is vital to the protection of source water and therefore must be included.

We also request that the state furnish more specific details about how it will coordinate assessments for source water protection areas that cross state boundaries, make any memorandum of understanding with other states available for public comment, and amend these memorandum to the SWAP. A broader stakeholder process that includes drinking water consumers should be mandated for interstate assessments.

V. Land Use Activity Inventory

We are concerned that the euphemistic "land use activity" category obfuscates the real meaning of this section, and suggest that it be renamed something more meaningful such as "potential sources of contaminates." Forests, wetlands and other land uses are not listed in the charts, and are not the land use types that are the sources of pollution to our drinking water that we are concerned about.

We urge the state to fully utilize data available including information on the locations of solid waste landfills, Confined Animal Feeding Operations, mining, Superfund sites, underground and above ground storage tanks, oil and gas tanks, incinerators, hazardous waste sites, abandoned wells, and other significant point and non-point pollution sources. Land use associated with agricultural operations (even large unregulated facilities), commercial facilities, manufacturing and industrial facilities, institutional facilities, and utility companies may also be considered potential sources of contamination particularly as they relate to nonpoint source discharges. All contaminants from these sources should be considered as contaminants of concern.

Virginia is only second to Pennsylvania in solid waste trash dumps and it is increasing rapidly, jeopardizing our ground water sources once the liners tear. The limited liability and thirty year insurance coverage that dump site owners are required to have may become obsolete as soon as it is needed most. Virginia has lax regulations for a huge poultry industry that profoundly affects that nitrogen and phosphorus in our water sources, and now only chicken growers with more than 100,000 chickens are regulated. In addition, urban sprawl

threatens ever increasing acres of wetlands that help to filter and clean our water. The assessment should also take future zoning into account when assessing pollution sources, especially regarding future housing, solid waste facilities, animal operations, and other potential sources of pollution. Virginia needs to address each of these land use issues if it is to properly assess and protect our drinking water sources -- including issues of both quality and quantity of water available for our growing population.

We urge the state to fully utilize data available from the EPA's Regulated Contaminants, Contaminant Candidate List, and Health Advisory List of Contaminants; NPDES point source dischargers; Toxic Release Inventory; US Geological Survey's National Water-Quality Assessment list of monitored contaminants; Department of Health Health Advisories for unregulated contaminants; and other information that is routinely collected by non-profit organizations such as the Chesapeake Bay Foundation; to identify which contaminants may be or have been found in Virginia's source waters and to be included in the assessment. If the state does not plan on using information from these sources, we deserve an explanation about why.

We would also request that the final SWAP draft include a list of contaminants to be assessed, and that the final assessment include a listing of the specific sources of each of the contaminants within a delineated water source, listing the sources name and address in the reports available to the public.

We would also encourage that greater significance be given to septic systems, particularly as much of the state is experiencing tremendous growth in individual homes and small septic tank use. These can have a tremendous influence on water sources and can overwhelm the land's ability to filter water before it reaches the aquifer. The state also has quite a few "straight pipes" and holding tanks on older homes that could impact both ground and surface water sources.

Due to the unique nature of each source water intake, we urge the state to include and solicit information from a wide variety of local sources in assessing each site. We encourage the state to gather local information from water treatment plants, local surface water protection agencies, area health departments, area fire departments, business and industries, agriculture, education, planning, environmental groups and the general public in assessing each intake. We would also encourage the state to organize teams, similar to those in some states for well head protection programs, in the development of the assessment and recommendations for source water protection. The inclusion of diverse people and interests in the assessments will provide for a more comprehensive assessments, and will help the assessments become valuable tools for future source water protection efforts.

VI. Susceptibility Determination

We would like specific details about the contaminants that the state will be

assessing. Of course, the state will assess the contaminants required by the SDWA and other regulations, but **we would hope that the state will also assess the unregulated contaminants that are potentially health threatening and that are currently emitted or found in the state's waters.** We are glad that many utilities regularly monitor for unregulated contaminants, but we would like the results of those tests compiled in the SWAP to help obtain a full listing of the contaminants found in Virginia's waters. If a contaminant has not be found, or is found in quantities related to no or minimal health effects, we would support waivers for testing for these contaminants, but first we would like to see what has been tested, what has been found and in what quantities in which water sources, and research the potential health effects of those contaminants. We would like to comment further on this issue after reviewing the contaminants list the state plans to assess. **We also ask the state to include public review and comments prior to adoption of their final contaminant lists to be included in the assessment. We would also like citizens to be involved in decisions about the reevaluation of contaminants in light of new developments or information.**

The SWAP draft also mentions that public water supplies (for systems serving over 100,000 people) are currently tested for microbial contaminants, but cryptosporidium and other fecal matter is routinely found in our drinking water in significant amounts, causing public water boil alerts and recommendations for boiling tap water for vulnerable populations. Many people are afraid of drinking public tap water and are buying bottled water in ever increasing amounts. The addition of chlorine and other chemicals to kill bacteria may also have adverse health effects -- chronic exposure can lead to bladder and colo-rectal cancers and other problems. We need to protect our drinking water at its source and decrease our reliance on treating already polluted water before we drink it. **We would hope that the assessment would include an evaluation of microbial contaminants in smaller water sources, and include in the assessments possible sources of contamination from regulated and unregulated confined animal feeding operations and human waste disposal sources.**

VII. Source Water Protection Program

Again, we would like to reiterate our desire for the final Assessment to include specific recommendations for source water protections, and to include citizen participation in the determination of the recommended protections.

VII. Making Assessments Available to the Public

The draft mentions that copies of the final Assessment will be made available in a public library, but **we would like the state to add that at least one full copy will be made available in the main library in each county.** We are pleased that the Assessment will be made available on the web, and would urge that the state review other potential sources for

distribution. We also urge the state to include information about how local citizens can review the full Assessment in the Consumer Confidence Reports that water utilities will be sending to the public annually, as well as send this information to residents who will not receive these Reports because they do not receive a water bill. This notice should also include a way to obtain a copy of the SWAP by phone or mail, and specify how the public can get involved in the state's water protection efforts.

All Virginia citizens have the right to know about the quality of their drinking water and the threats to that water. This information provides the best opportunity for source water protection -- aware citizens will insist on healthy water. **Therefore, public disclosure of the assessments must be comprehensive, in an easy to read format, and written in lay language as much as possible. The final assessment should also include comprehensive maps with the drinking water intakes, delineation boundaries, and sources of contamination plainly marked, and should also include points of reference like major towns, tributaries and rivers, and town/county boundaries.** Each individual source of contamination should be listed, with narrative descriptions including the contaminants of concern from each. Translations into Spanish, and other major languages as needed, should be available to those that do not speak English. The draft SWAP should also include a method for informing workers about the quality of the drinking water in their workplace.

Preliminary assessment results, not just final results, should be disclosed to the general public, especially when there are cases of severe contamination. There may be instances where protection measures are needed before final assessments are completed in order to protect public health. Preliminary results should be made available at the earliest possible time for public review and as much information as can be collected each year should be included in the Consumer Confidence Reports sent to consumers annually.

Responsiveness Summary for Public Comments for
The Source Water Assessment Program
Public Meeting – January 12, 1999

ORGANIZATION NAME	CONTACT NAME	COMMENTS	RESPONSE
Clean Water Action	Kye Briesath	We would like to formally request that an expanded Citizen Advisory Committee continue throughout the implementation of this SWAP. We would like the state to actively seek the participation of a wider group of citizen, environment and public health groups throughout this assessment program, as well as in the formation and implementation of Source Water Protection recommendations for Virginia. We also request that a Clean Water Action representative serve on the ongoing Citizen Advisory Committee.	This issue was discussed by the Technical and Citizens Committee (TAC) and the TAC's response is found in Appendix E, Table 1, Public Participation, Issue 3.
		We would like an accounting of funds already spent and funds allocated for future public participation efforts from the SDWA set-aside in Virginia.	VDH intends to develop this documentation.
		The goals should state that the primary goal of the SWAP process is to provide a detailed assessment for the purpose of developing a strong drinking water protection plan for the optimal public health of Virginia residents, including the most vulnerable among us like children, elderly, or ill family members.	VDH changed the goal to include "protecting the public's health".

		<p>As the assessments are completed, we would like the state to develop a list of specific recommendations for source water protection in its final SWAP report, and to follow up with those recommendations. We also want citizens involved in establishing these recommendations for source water protection.</p>	<p>This issue was discussed by the Technical and Citizens Committee (TAC) and the TAC's response is found in Table 5, Making the Results of the Assessment Available to the Public, Issue 1.</p>
		<p>We are concerned that the state make every effort to complete the assessment within the earliest possible timeline. The sooner the assessments are complete, the sooner prevention programs can be established to protect public health.</p>	<p>VDH will make every effort to complete the assessment within the earliest possible timeline. This issue was discussed by the Technical and Citizens Committee (TAC) and the TAC's response is found in Table 6, State Program Implementation, Issue 1.</p>
		<p>We request that the public be involved in financial decisions regarding the SWAP's budget and staffing.</p>	<p>This issue was discussed by the Technical and Citizens Committee (TAC) and the TAC's response is found in Table 6, State Program Implementation, Issue 1.</p>

		We would also request that citizens be involved in evaluating the results generated by utility professionals who may have a different perspective about their research or findings than citizens may have.	VDH does not foresee a need for additional involvement. The TAC developed strict criteria for the assessment and VDH must concur with all assessment results (Section IX. D. General)
		We would urge the state to first fully utilize all of the information available from USGS, GIS mapping and other sources to determine much more accurate delineations.	VDH intends to utilize this information in the delineation areas.
		We also encourage the state to involve the public in the determination of any fixed radius delineation before the decision to do so is made, and that every effort will be made to utilize more specific delineation models at the state's earliest opportunity.	The TAC has established the delineation criteria that VDH will utilize; however, we agree that we should use every effort to utilize more specific delineation models at the earliest opportunity.

		We also recommend that separate delineation plans be implemented for karst and non-karst areas, with special emphasis on obtaining sound geological delineation boundaries for karst areas. The state should make every effort to use time of travel for water reaching well heads in its determination of all groundwater delineation zones.	The TAC has established the delineation criteria VDH will utilize. The limitations of the chosen criteria is well understood. VDH has contracted for five (5) detailed delineation studies per year in karst areas by DCR.
		Utilizing a fixed radius for surface water is also problematic, and we would urge the state to utilize as much of the watershed as possible in the delineation zone for surface waters.	The TAC has established the delineation criteria VDH will utilize. Zone 2 includes the entire watershed.
		It is important to include the time of travel and the entire recharge areas for ground water sources in mapping the delineation zones.	The TAC has established the delineation criteria VDH will utilize.

		<p>We also request that the state furnish more specific details about how it will coordinate assessments for source water protection areas that cross state boundaries, make any memorandum of understanding with other states available for public comment, and amend these memorandum to the SWAP.</p>	<p>Specific details are not available at this time. Reference is made to Appendix N, Table 4, Boundary Waters, Multi-State Rivers, and the Great Lakes, Issues 1 and 4.</p>
		<p>We are concerned that the euphemistic “land use activity” category obfuscates the real meaning of this section, and suggest that it be renamed something more meaningful such as “potential sources of contaminates.”</p>	<p>The TAC considered in great detail this issue and decided on the term “Land Use Activity”.</p>
		<p>We urge the state to fully utilize data available including information on the locations of solid waste landfills. Confined Animal Feeding Operations, mining, Superfund sites, underground and above ground storage tanks, oil and gas tanks, incinerators, hazardous waste sites, abandoned wells, and other significant point and non-point pollution sources.</p>	<p>VDH concurs and this is included in the SWAP in numerous locations.</p>

		We urge the state to fully utilize data available from the EPA's Regulated Contaminants, Contaminant Candidate List, and Health Advisory List of Contaminants; NPDES point source dischargers; Toxic Release Inventory; US Geological Survey's National Water-Quality Assessment list of monitored contaminants; Department of Health Health Advisories for unregulated contaminants; and other information that is routinely collected by non-profit organizations such as the Chesapeake Bay Foundation; to identify which contaminants may be or have been found in Virginia's source waters and to be included in the assessment.	VDH concurs and this is included in the SWAP in numerous locations.
		We would also request that the final SWAP draft include a list of contaminants to be assessed, and that the final assessment include a listing of the specific sources of each of the contaminants within a delineated water source, listing the sources name and address in the reports available to the public.	VDH will add a list of the current EPA regulated and unregulated contaminants in an Appendix. Please note the comment in Appendix N, Table 3, Issue 2 for additional information.
		We would also encourage that greater significance be given to septic systems, particularly as much of the state is experiencing tremendous growth in individual homes and small septic tank use.	VDH feels that this issue is important and that the current SWAP adequately addresses it.

		Due to the unique nature of each source water intake, we urge the state to include and solicit information from a wide variety of local sources in assessing each site.	VDH concurs and intends to do so.
		We would like specific details about the contaminants that the state will be assessing. We would hope that the state will also assess the unregulated contaminants that are potentially health threatening and that are currently emitted or found in the state's waters.	VDH will add a list of the current EPA regulated and unregulated contaminants in an Appendix. Please note the comment in Appendix N, Table 3, Issue 2 for additional information.
		We also ask the state to include public review and comments prior to adoption of their final contaminant lists to be included in the assessment. We would also like citizens to be involved in decisions about the reevaluation of contaminants in light of new developments or information.	The TAC has established in the SWAP the contaminants of concern. Further public involvement does not appear appropriate.

		We would hope that the assessment would include an evaluation of microbial contaminants in smaller water sources, and include in the assessments possible sources of contamination from regulated and unregulated confined animal feeding operations and human waste disposal sources.	VDH concurs and feels the SWAP addresses this issue.
		We would like the state to add that at least one full copy will be made available in the main library in each county.	VDH feels that this is included in Section VIII. B.1.a.
		We also urge the state to include information about how local citizens can review the full Assessment in the Consumer Confidence Reports that water utilities will be sending to the public annually, as well as send this information to residents who will not receive these Reports because they do not receive a water bill. This notice should also include a way to obtain a copy of the SWAP by phone or mail, and specify how the public can get involved in the state's water protection efforts.	VDH feels that this is included in Section VIII. B.2.a. as well as in the Consumer Confidence Report requirements.

		Therefore, public disclosure of the assessments must be comprehensive, in an easy to read format, and written in lay language as much as possible. The final assessment should also include comprehensive maps with the drinking water intakes, delineation boundaries, and sources of contamination plainly marked, and should also include points of reference like major towns, tributaries and rivers, and town/county boundaries.	VDH concurs and feels that the SWAP includes these suggestions.
		Preliminary assessment results, not just final results, should be disclosed to the general public especially when there are cases of severe contamination.	In cases of severe contamination, the public is already notified through other VDH/SDWA requirements. Assessments should not normally discover existing contamination of the source (potential sources of contamination). However if the assessment does identify a violation of the MCL standard, the VDH will require public notification.

James River Association	Patricia Jackson	There is not adequate citizen representatives on the TAC committee. This resulted in public health and public notice issues not being properly addressed.	This issue was discussed by the Technical and Citizens Advisory Committee (TAC) and the TAC's responses are found in Appendix E, Table 1, Public Participation, Issues 1 and 2.
		The TAC meetings were scheduled during the day. This resulted in these meetings not being assessable by the public.	The meetings were scheduled during the day. However, the public meetings on January 11 and 12 were expanded at Ms. Jackson's request to include an evening meeting so the public could attend. Only two (2) people attended; one (1) consultant and one (1) representative from the "Friends of the Rivers of Virginia".
		The public notice requirements of the source water assessment program are not adequate to insure that the public will be notified.	This issue was discussed by the Technical and Citizens Advisory Committee (TAC) and the TAC's responses are found in Appendix E, Table 5, Making the Results of Assessments Available to the Public, Issues 1, 2, and 3. Section VIII of the SWAP provides the TAC approved details.

		There needs to be a greater effort to involve the public and the TAC during the source water assessments from here on out.	This issue was discussed by the Technical and Citizens Advisory Committee (TAC) and the TAC's responses are found in Appendix E, Table 1, Public Participation, Issue 3.
		The State Health Department should consider newspaper advertisement style notifications of the Source Water Assessment plan and allow comments before the February 6 th submittal to EPA.	VDH concurred and advertised in the Roanoke Times, the Richmond Times Dispatch and The Virginian-Pilot. No further public comments were received.
		In the Source Water Assessment Program the wording which identifies the efforts the waterworks owner must do to perform public notice is minimal. The waterworks owner should be required to do more in the area of public notice.	This issue was discussed by the Technical and Citizens Advisory Committee (TAC) and the TAC's responses are found in Appendix E, Table 5, Making the Results of Assessments Available to the Public, Issues 1, 2, and 3. Section VIII of the SWAP provides the TAC approved details.

		Table number 1 should be relabeled “potential sources of contamination” as it was originally worded. Ms. Jackson does not agree with this change made by the TAC and the Source Water Assessment Team.	The TAC considered in great detail this issue and decided on the term “Land Use Activity”.
		In table 1 landfill should be identified as lined or unlined and the risk of unlined landfills should be increased to high risk for Groundwater sources. Lined landfills should have a medium risk associated with them. Open dumps should have a high high risk assessment.	This will be presented to the TAC and TEAM for their consideration.
		Why don’t we identify specific contaminants for barges and sink holes. We should list all potential contaminants.	This will be presented to the TAC and TEAM for their consideration.

		The scope of work for the Source Water Assessments should be looked into in detail. There needs to be budget items for this work and additional people hired and money allocated to insure that these assessments are performed in a timely manner.	VDH has determined that it can perform the assessments in a timely manner with current staff.
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